

## CASE STUDY: PORTLAND GREEN INVESTMENT FUND

### 1. THE POLICY

The Green Investment Fund (GIF) emerged from an effort headed by the Portland Office of Sustainable Development in 2001 to aid green building early adopters in the process of improving the performance of their buildings. By 2004, over 70 projects had been granted funds, with grant sizes ranging from \$3,000 to \$70,000 (the majority of the grants were between \$5,000 and \$10,000) in four categories: single-family, multi-family, commercial, and innovation. The grants were awarded to projects that exhibited a wide range of innovative green building practices from energy efficiency and on-site renewable energy generation to water harvesting and recapture.

In 2004, the GIF expanded to its current form, which includes other partnering agencies and organizations – the Portland Bureau of Environmental Services, the Portland Water Bureau, and the Energy Trust of Oregon, Inc. Each partner contributes annually to the fund and oversees project selection and fund allocation. The primary intent of the GIF is to support early building and site-related project activities that examine the potential of and identify the means to realize an exemplary, comprehensive green building project. GIF grants are secondarily intended to help offset the incremental hard costs of the green building measures or strategies that most strongly contribute to the building's ability to meet the GIF goals and strategies (see section 2.2). The key focus of the strategies change each year.

The GIF is a competitive grant program that supports innovative green building projects in Portland. In the current round of funding, a total of \$425,000 is available, and the maximum grant amount for any project is \$425,000. Industrial, multi-family residential, commercial, and mixed-use public and private organizations qualify. Grants are available to projects irrespective of other supplementary financing sources, and are considered taxable.

The first payment amount is unrestricted and must apply to conceptual and schematic design activities that identify green building and site measures that facilitate the realization of the GIF's goals and strategies. The second and third payment will be a split of the remaining grant amount and apply to the costs of the green building and site measures identified through conceptual and schematic design activities.

### 2. ENERGY EFFICIENCY POTENTIAL

#### 2.1. Policy Uptake

Since 2004, the GIF has granted funds to 33 projects, roughly 5 to 8 projects per year. The monetary limitations of the fund and the stringency of the threshold requirements place a limit on the number of projects that could benefit from the program each year. Nonetheless, these projects serve as models for the development community and demonstrate the economic feasibility of innovative technologies and design strategies.

Year	Number of Proposals	Total \$ Requested	Projects Selected	Commercial (+ multi-family)	Residential	Other
2005	33	~ \$2 million	13	6	3	4
2006	31	~ \$4 million	6	3	3	
2007	39	~ \$5 million	6	4	2	
2008	22	> \$5 million	7	7		

In the application process, each project is assessed and ranked by the technical advisory committee (architects, designers, and energy and water experts independent of the funding organizations). The top ranked projects are then reviewed by representatives from each partner organization and grant amounts are determined according to the internal criteria of each organization. In 2007-2008 GIF attracted more office towers than ever before, most likely due to the fact that the cap on total funding was removed (i.e. a project could get the full \$425,000). However, the grants were allocated over seven projects, not just one. The GIF found that when single-family residential projects were allowed to apply (2005-2007), the applicants typically ask for less money (and

receive less) than the multifamily/commercial projects.

## 2.2. Energy Savings Potential

### Criteria – Performance Thresholds to Qualify for Application Review

*Energy efficiency and on-site renewable power generation:*

1. Implement integrated design strategies that will maximize energy efficiency and overall building performance, and implement on-site renewable power generation for the remaining load.
2. Install monitoring and verification equipment or an energy management system that will facilitate ongoing energy performance and maintenance over the building's lifetime.

*Performance targets and preferred strategies:*

1. Increase building performance beyond the Oregon Energy Code by 60%.
2. Install on-site renewable power generation for at least 12% of the remaining electricity load after implementing available energy efficiency strategies and technologies. Calculate renewable generation as a percentage of total energy load.

*Energy efficiency calculation:*

1. Calculate the baseline energy load and occupancy demands for stated daily hours of operation and expected number of occupants. This calculation may include equipment such as servers, computers, office equipment, HVAC, windows, insulation, and all other factors that impact load. Include the use and impact of equipment controls and occupancy sensors.
2. Calculate efficiency of installed equipment against the baseline. State rated energy efficiency of installed equipment and materials, such as the U-value of windows, R-value of insulation, etc.

There are additional performance thresholds in: (1) materials efficiency, recycling and durability; (2) stormwater management and improvement in watershed health; and (3) water conservation and efficiency.

The current energy savings performance threshold states that the building must go well beyond the current Code. Given the fact that only a limited number of projects are awarded each year, the overall energy savings for the city is quite small. There is some emphasis placed on the strategic location of grantees, in order to catalyze green building in targeted areas of the city. Any evidence of this actually occurring is anecdotal at this point.

## 3. COST OF IMPLEMENTATION

### 3.1. Program Cost to the City

The GIF has a 5-year lifespan with a total budget of \$2.5 MM. Each year was allocated \$500,000, \$425,000 of which would be used for grants, \$50,000 (10%) for administration and \$25,000 (5%) monitoring by the Portland Office of Sustainable Development. Three government agencies – the Portland Office of Sustainable Development, the Portland Bureau of Environmental Services, and the Portland Water Bureau – share the City's program cost burden (70% of the total), while a non-profit organization, the Energy Trust of Oregon, Inc., contributes the other 30% of the yearly program cost.

### 3.2. Cost to the Developer

According to developer Kevin Cavanaugh, the administrative cost of applying for the GIF is quite minimal, and there is no post-development monitoring program assessing the actual building performance. The cost of complying with the current building performance thresholds are unmeasured, though expected cost premiums are estimated at 3% of project costs.

## 4. ADMINISTRATIVE FEASIBILITY

### 4.1. Administering Agency

The GIF is administered by the Portland Office of Sustainable Development. There are two staff members that dedicate a portion of their time to the fund year-round. The coordinator of the program estimates that 10-15% of her time goes toward administering the GIF, and the business manager who oversees the payments estimates that 20% of his time goes toward the GIF, with heavier workloads during the application review period. During the application review cycle a technical advisory committee, comprised of developers, architects, engineers, builders, green building consultants and community activists, is used to assess each application.

### 4.2. Ease of Initiation

Since the GIF is a four-organization partnership, the process of initiation requires a significant amount of collaboration across organizations to determine the program targets and minimum thresholds of building performance to qualify. Due to the fact that the GIF was initiated as a 5-year program allowed for a limited commitment of the partner organizations, both in time and money.

### 4.3. Funding Requirements

The GIF is jointly funded by the Portland Office of Sustainable Development, the Bureau of Environmental Services, the Water Bureau, and the Energy Trust of Oregon, Inc.

Organization	Annual Funding Contribution
Portland Office of Sustainable Development	\$50,000
Portland Bureau of Environmental Services	\$225,000
Portland Water Bureau	\$75,000
Energy Trust of Oregon, Inc. (NGO)	\$150,000

### 4.4. Educational Outreach Requirements

The educational outreach requirements are minimal. A press release is issued each year announcing the start of the application process.

## 5. STAKEHOLDER IMPACTS

### 5.1. Acceptability to the Developer

According to the Portland Office of Sustainable Development, the developer community is quite enthusiastic about the GIF. The access to additional funding, the publicity benefits, and the easy application process were cited as primary reasons for their support. The only drawbacks are that the process is highly competitive, and project selection and grant funding allocation can be contested. As the Portland Office of Sustainable Development reiterated a number of times, there are always more qualified projects than available funding. Nonetheless, some developers have had the fortune of being awarded multiple grants for different projects.

Local designer-developer Kevin Cavanaugh states that there is a large incentive to innovate in the areas prescribed by the GIF each year. There has been some pushback, however, on the issue of tying grant qualifications to building performance metrics that require large upfront costs in modeling and consulting fees. This would bias the grant toward large projects, which ultimately would benefit less from the modest grants available to them. Even with potential extra costs, there are ample financial rewards for receiving a GIF grant, namely in the positive publicity, higher absorption, and potential lease premiums.

## 6. REFERENCES

Alisa Kane, Portland Office of Sustainable Development

Kevin Cavanaugh, Developer, Burnside Rocket